Wayne County Gem and Mineral Club News

July, 2015

Always Looking for Places to Dig!





Jerry Donahue (left) assists a family operate the sluice at GemFest.



Website http://www.wcgmc.org/



Banded orange travertine piece is set in front of Ilion Gorge falls (see page 4)

Next Club Meeting is the Picnic! Saturday, August 15th, 10:00 AM-?

Weiler Home and Club Workshop, 6676 E. Port Bay Rd., Wolcott, NY watch the August newsletter and website for details

Upcoming WCGMC Field Trips

Saturday June 27 – Alden, NY for pyritized fossils in the Ledyard shale. See <u>June-July 2014 WCGMC News</u> for site details. Meet at Dollar General Store on Rte. 20 in Alden at 10 AM.

July 19-25 - Canada here we come! Three days in the Cobalt Mining District and three days in the Eganville-Bancroft region. We need to hear from anyone interested immediately as motels are set and carpools are being formed. Call Fred Haynes or Linda Schmidtgall.

Sunday August 9 – A fossil trip: we will revisit the popular Green's Landing site along Lake Canandaigua. Meet at the Deep Run beach parking lot at 9:00 AM. We will likely car pool from there to the site just 1 mile north. This is on private property that can only be visited with permission. *Leader – Stephen Mayer*

For more info and details on trips/events, see page 7



A portion of the show floor at this year's club show in Canandaigua, June 6-7 (see page 5).



Mineral Musings by Fred Haynes



Polished Stones Count Too

I have a confession to make. Yes, I admit it, for the first few decades of my adult life I collected minerals while scoffing at the notion of cutting rocks and polishing their surface to produce symmetric reflective surfaces. Cabochons, smabochons, ... spheres, smears, I would say, or something to that effect. Well, since joining WCGMC I have come to realize that some rocks, even some minerals, are best displayed and enjoyed after they have been carved, sliced, ground, and polished. What is more, that process can be fun and there is art involved in the creation of a polished stone. I am not a total convert, I still cherish and generally prefer natural crystalline specimens, preferably on matrix and often in association with other minerals, but I am now capable of collecting, and yes even, horrors, purchasing a polished cabochon.

OK, with that admission of past guilt, or new guilt depending on your persuasion, I decided to peruse the GemFest floor for particularly interesting pieces that had been butchered by a saw and then beautified by some process of trimming and polishing. I found several that caught my fancy. But I must warn you, beauty, color, and symmetry are not enough. The rock or mineral must tell an interesting geologic story and just like a classic mineral specimen it must have a provenance, a banded agate from somewhere just won't make my short list no matter how beautiful it might be. So what did I find?

MARSHMALLOW STONE



To a geologist this is a diabase porphyry (or dolerite porphyry if you are British!), just a garden variety igneous rock. It is a diabase because the groundmass (the fine grained material between the "marshmallows") is high in calcium and sodium and low in potassium such that the finer grained minerals are plagioclase feldspar, biotite, hornblende and/or pyroxene. If there were more potassium it would be granite. It is the texture that generates the term porphyry. The larger marshmallows (geologists would call them phenocrysts) are plagioclase that crystallized first in the cooling magma and grew to appreciable size before the remainder of the magma solidified. The pinkish color is due to a later partial alteration of the plagioclase to clinozoisite (http://www.mindat.org/loc-253647.html). Because the second phase of crystallization occurred more rapidly, probably at a shallower depth, the groundmass minerals are smaller. This is a common texture in igneous rocks that undergo two stages of cooling and solidification and the term for an igneous rock with that character is porphyry.

I found this piece at the booth of Mike's Minerals, Youngstown, OH. It is from Mindolah in Cue Shire, Western Australia, where it is quarried as ornamental stone. Yes, ornamental, but also unique, and marshmallow stone is indeed more descriptive than diabase porphyry.

CHRYSANTHEMUM STONE and SEPTARIAN NODULE





Sedimentary processes can also generate unique and interesting features that are amenable to the saw and the polishing wheel. The chrysanthemum stone above on the left formed when strontium-rich seawater penetrated buried, but non-lithified, organic calcareous muds in the seafloor. Cracks formed in the hardening mud and celestite (SrSO₄) and calcite

(CaCO₃) were precipitated. The growing crystals pushed the ooze aside generating patterns that often resemble flowers. This particular stone was offered by Stones by Stalker of Tioga, PA and is from Permian age strata in the Hunan Province of China.

I am violating my requirement of provenance by including a Septarian Nodule that was offered by Canton Collectibles of Martinsburg, WV in this discussion. We do not know its actual provenance, but the perplexing story of a septarian nodule is too interesting to overlook. First, one needs to grow a concretion within a sedimentary sequence, a rock that is harder that its surroundings, generally cemented, and trending towards round in shape. Simply put, geologists can not agree on how that occurs. Is it from the inside out after nucleating on an organic fragment? Perhaps, but then radially oriented cracks often taper towards the margins indicating a stiffer margin.

And then we must crack the nodule and that mechanism is also controversial. Clay dehydration, gas escape as organic matter decays, shrinkage of the center with burial mineralization, and a host of exotic mechanisms have been proposed. Heck, they may all work under the correct circumstances. In this case, calcite precipitation within the cracked nodule occurred in two stages. The first left a very dark rind on the host dolostone. The latter final stage of cement filling calcite is a brilliant honey color and the crystals are larger.

AZURITE IN GRANITE



I researched this next one with a fair amount of skepticism, but learned my concerns were unfounded. John Diaz of DarkHorse Minerals had several polished granite pieces displaying splotches of azurite. The blue almost appears to have been added with a dye, but careful examination reveals that the copper carbonate mineral is present along

grain boundaries and in tiny fractures within grains. They are from Pakistan, recovered in talus at high elevation alongside the second highest mountain in the world, K2, also known as Mount Godwin Austen (http://geology.com/gemstones/k2/). Malachite is also found in similar setting.

LABRADORITE



Of course there are many minerals that also display best when polished. One such mineral is labradorite. Actually labradorite is not a recognized mineral, at least not officially by the international organization responsible for such things, but rather it is a name given to an intermediate composition in the plagioclase series between end member minerals anorthite (CaAl₂Si₂O₈) and albite (NaAlSi₃O₈). Labradorite is the term used for plagioclase that ranges between 50% and 70% anorthite component.

Although named for a type location in Paul's Island, Labrador, Canada, this piece I saw (and purchased) was from Madagascar. It was offered by Malachite and Gems of Rochester, NY. The peculiar reflectance from submicroscopic planes in the mineral lattice are so unique to labradorite that the iridescent feature is called labradorsecence (http://en.wikipedia.org/wiki/Labradorite).

Space does not permit me to continue, at least not this month. But I ask you, what is your favorite polished stone? Do you like it for its features, its unusual origin, because you found it and cut it, or just because. Any answer is just fine.

References:

McBride, E.F., et. al., 2003, Calcite-cemented Concretions in Cretaceous Sandstone, Wyoming and Utah, Journal of Sedimentary Research, v. 73, n. 3, p. 462-483.

Various Mindat and Wikipedia sites were also accessed as noted in the text.



SITE OF THE MONTH



Ilion Gorge revisited

Returning to a Favorite Place

One of WCGMC's favorite hunting grounds is Ilion Gorge on Jerusalem Road south of the town of Ilion. Each winter erosion in the gorge exposes new banded travertine that can be collected in the creek or chiseled from the boulders that have fallen off the gorge walls. The site is pretty with short waterfalls and lots of green.



Arriving at Ilion Gorge: This year's trip was on Saturday May 30th. Eleven club members converged on the site for a day of collecting and camaraderie.

The Late Silurian shales hosting the travertine weather rapidly exposing the banded travertine. It must be exciting to be along the gorge when it is roaring with snowmelt water. While the shales erode, the travertine does not and large blocks of cemented shale can be very hard to break and collect.



Isaac St. John watches his dad, Ken (in red) and trip leader Bill Chapman (in purple) work to extract orange stalactites exposed in a linear vug. Or perhaps they were stalagmites; the boulder Isaac is perched upon must have fallen from the gorge walls in recent years.



More help for Ken and Bill arrives as Eva Jane and Linda stop by for a peak. It almost looks like a government job with more bystanders than workers. Notice Linda has gotten her feet wet.



Isaac was not a spectator the entire day. He went collecting also. The look on his face?: well, his dad had just told him that this specimen, a decaying deer skeleton was not going home with him. But it did get him a second picture in the club newsletter!

Glenn Weiler found a large boulder virtually buried in the creek that was nearly 100% brown and orange banded travertine. Too large to move, but not too large to break, the entire boulder found its way out of the canyon before the day was done. We intend to cut and polish that piece during the club picnic in August. If you attend, there will be a piece of Ilion Gorge for you to work on and take home.

For more on the geology of Ilion Gorge, the site was highlighted in the <u>August 2014 issue</u> of the WCGMC Newsletter.

Gem Fest 2015

It takes an army to pull off a successful event like GemFest and an army is what the Wayne County Gem and Mineral Club had for the big show in Canandaigua. It is hard enough to make an annual event work well when held in a recurring location. It is amazing that everything went so smoothly in a site that was so new and different for us. That is a testament to the strength, generosity, and diversity of skills of all the club members who worked so hard to make it happen. The length of the list is impressive with a club our size. These people helped make it happen. We hope we did not leave anyone out.

Glenn, Eva Jane, and Matt Weiler Bill and Pat Chapman Bill and Rita Lesniak Julie and Cheyenne Daniels Ken and Rocky Rowe Linda Schmidtgall Fred Haynes Dave Millis Jerry Donahue Gary Thomas Sue Hoch Jerry Curcio Jerry Coyler Bob and Joanna McGuire Tom Beck and Barb Dugan Ed Smith Christine Van Neel Don Schlitz Terry Wilson Scott Jones Eric Elias Sandy and Rich Wirth Laurie Frev Donna Dow

We would be remiss not to acknowledge and to thank the 19 dealers who shared the event with us. Without them we would not have had a show to support. We hope they did well and will return.

Finally we thank the
Executive Director of the
Greater Canandaigua Civic
Center, Dave Korpiel, for his
assistance making the venue
a successful place to hold
our cherished annual event.

















A Second try at the Fossil Quiz

In June, I offered a Fossil Quiz, but failed to provide the answers, yet another editor blunder! For those of you who have been patiently waiting, I will try again. This time the answers are below:



- 1. Can you name the phylum of all these fossils/shells?
- 2. How about the Class for each?
- 3. Now, how about the Genus and species for each?
- A-C are all related, but there are two species. Can you tell which one is different? Hint: It is not based on color.
- A. Pecten humphreysii
- B. Pecten humphreysii
- C. Chesapecten santamaria
- D. Turritella mortoni (Eocene) King George Co., VA
- E. Belemnitella sp. (squid), Crystal Creek, WY
- A-C Class Bivalvia
- D. Class Gastropoda
- E. Class Cephalopoda

Pecten humphreysii have 6-8 ridges while Chesapecten santamaria have 12-14 ridges. If you find a Pecten with 13-18 ridges it is most likely a Chesapecten nefrens.



WCGMC Rockhound of the Year - Fred Haynes

The WCGMC was very proud to announce at the 2015 Gem Fest the award of "Rockhound of the Year" to Fred Haynes. The club wanted to recognize the dedication Fred has shown our club since joining two years ago. Aside from taking on the duty of chief cook and bottle washer of our monthly newsletter, which by the way should be



Club President Glenn Weiler (right) presents Fred Haynes with the 2015 Rockhound of the Year Award.

read from top to bottom with a wealth of information, he has helped to organize trips, helped tremendously with the very successful Gem Fest Show, is our official club photographer, is always helpful identifying minerals and fossils, and consistently promotes our club wherever he goes. As a geologist, Fred has been in the mineral field most of his life (well maybe not in the field but certainly chiseling a rock wall somewhere). With this he has brought a great wealth of knowledge to our club. This award is just a small acknowledgement for the past, the present, and hopefully a long future of FUN together. --- Club President Glenn Weiler



If you see this license plate on a big gray pick-up in front of you, you know you are following our field trip leader, Bill Chapman. And if you know what it means, you are a true mineral collector! It is pronounced "leave-her-right" and it refers to that rare rock that Bill picks up and then discards. He "leaves her right" there.

GemFest Display- Glenn Weiler (The Pyramids and Planets of Wolcott)



During the next several months we will feature some of the exhibits club members put together for the big show. We will start with the creative works of our President Glenn Weiler. Glenn has been making pyramids in our workshop for some time, but this spring he has built two sphere machines and is now producing planets and moons. Club collectors could recognize that most of the pieces in Glenn's display had been collected on club digs. Sodalite and rose quartz from Bancroft, serpentine from St. Lawrence County, dolomite veins with purple fluorite from Mt. Pleasant Mills, a Herkimer diamond in a vug, and even Lake Ontario stones can yield colorful creations.

WCGMC 2015 Field Trip Schedule

last update (6/23/2015)

It is late June. GemFest is behind us and the days will begin to get shorter, but there is still plenty of collecting to do and WCGMC will remain active for several months. We won't have a club meeting in July, but we will collect and then in August we will party. This list is forever in flux and additional dates will be added with each newsletter, and are also posted on the website. You can always contact the listed trip leader, or Bill Chapman, if you are uncertain whether you have the latest information. Firm club activities are in red.

Remember to attend a WCGMC field trip you must be a club member, or a member of an affiliated club if you do not live in our region.

Saturday June 27 – Alden, NY for pyritized fossils and nodules in the Ledyard shale. See June-July 2014 WCGMC News for site details. Meet at Dollar General Store on Rte. 20 in Alden at 10 AM. Leader – Bill Chapman

July 19-25 –Six days in Ontario – Presently there are 9 of us slated to spend 3 days in Cobalt, Ontario and then 3 days in Eganville, Ontario. The Cobalt and Gowganda silver/cobalt/nickel districts will be visited out of a lakefront motel on the first three days and we plan to visit sites east of Bancroft (Miller property, Beryl Pit, and more) on the later 3 days. Leader – Fred Haynes

Sunday August 9 – A fossil trip: we will revisit the popular Green's Landing site along Lake Canandaigua. Meet at the Deep Run beach parking lot at 9:00 AM. We will likely car pool from there to the site just 1 mile north. This is on private property that can only be visited with permission. Leader – Stephen Mayer

Sept. 19-20 (Sat.-Sun.): Finally, St. Lawrence County in 2015. We will join SUNY-Plattsburgh Geology Club at Benson Mines Sat. AM and Rose Road Sun. PM. Trip will continue on Sunday and perhaps longer with sites TBA. Leader – Fred Haynes

<u>Later in the Summer – Watch this space</u>

Fossil Trips proposed include Deep Run, Indian Creek, Syracuse area, Second Creek in Sodus, and more. Mineral trips to Walworth, West Pierrepont+Powers, Rose Road, and more

SHOWS and OTHER EVENTS TO KEEP ON YOUR RADAR in the next 2-3 months

July 11-12 - GemWorld 2015 in Syracuse visit http://www.gmss.us/annual-show/2015-annual-show for details

August 1-2 – Paleontological Research Institute 10th Annual Summer Symposium --- for more visit - http://www.priweb.org/events.php?page=atthemuseum/548301

August 15 - Mark your calendar for the WCGMC Picnic in Wolcott at the Weiler's. The workshop will be open.

August 21-23 – The St. Lawrence Gem and Mineral Club show, Madrid, NY. Field trips planned to Powers Farm on Saturday and Bush Farm on Sunday. http://www.stlawrencecountymineralclub.org/show_1.html

September 12-13: NYSGA Annual Field Meeting, Plattsburg, NY For info on symposium and field trips see: http://www.nysga-online.net/meetings/meeting-information



No, WCGMC is not going to Norway in July, but we will be looking for these two minerals featured on Norwegian stamps (native silver and cobaltite) when we visit the historic Cobalt, Ontario silver mining district in July.



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Club meets 2nd Friday of each month starting in Sept. Mini-miner meeting at 6:30 PM. Regular meeting at 7:00 PM Park Presbyterian Church, Maple Court, Newark, NY **Website –** http://www.wcgmc.org/

Dues are only \$15 individual or \$20 family for a full season of fun. Send to WCGMC, P. O. Box 4, Newark, NY 14513

First Class: Dated Meetings & Time Valued



Wayne County Gem and Mineral Club P.O. Box 4 Mewark, New York 14513